

PROTECTED SPECIES REPORT: Bat Presence and Absence Surveys

Land at 1 Park Cottages, Hartford End, Essex

Report Reference: BG18.195

June **2018**

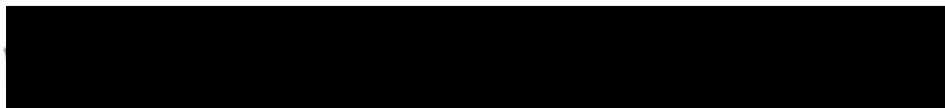


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This report has been prepared in accordance with the CIEEM (2015) **Guidance on Ecological Report Writing**. Chartered Institute of Ecology and Environmental Management, Winchester and CIEEM (2016) Technical guidance series, **Guidelines for Ecological Impact Assessment in the UK and Ireland**. Chartered Institute of Ecology and Environmental Management, Winchester



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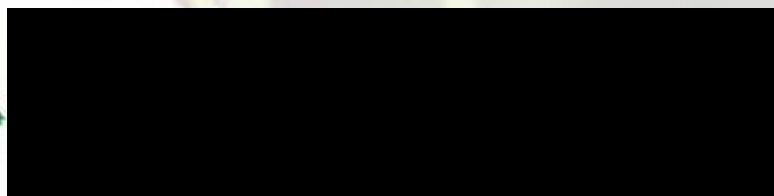
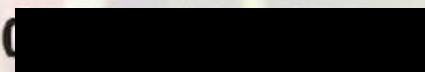


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Rev1			

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Jason and Victoria Clarke

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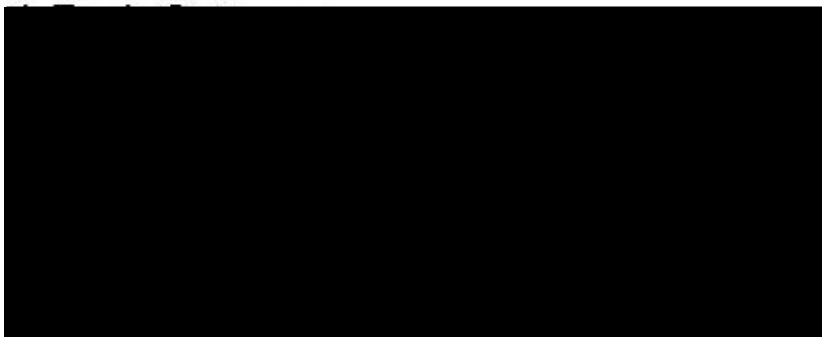
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Project carried out for:

Jason and Victoria Clarke



Project site:

Land at 1 Park Cottages

1 Park Cottages

Littley Park Lane

Hartford End

Essex

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Grid reference: TL 68853 17522

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1 Summary

- 1.1 Brindle and Green were commissioned by Jason and Victoria Clarke to undertake bat dusk emergence and dawn re-entry surveys at Land at 1 Park Cottages, Hartford End, Essex. The surveys were undertaken during May and June 2018.
- 1.2 A Preliminary Roost Assessment was undertaken on five buildings within the curtilage of 1 Park Cottages by Greenlight Environmental Consultancy (October 2017). The assessment concluded that Building 2 offered potential roosting features with moderate suitability, and further emergence surveys were recommended to confirm presence / absence of bat roosts. The PEA report should be reviewed in conjunction with this report.
- 1.3 The site is the subject of a planning application for the construction of two residential dwellings. It is understood that the existing outbuildings (Buildings, 2, 3, 4 and 5) to 1 Park Cottages (Building 1) will be demolished to facilitate the development. Design proposals for the site are presented in Appendix 5 of this report.
- 1.4 Building 2 was subjected to a dusk emergence survey and dawn re-survey during May and June 2018. The survey did not reveal any evidence of bats roosting within the building. As a result, this report does not set out recommendations relating to mitigation or the need for an EPS development licence prior to the buildings redevelopment
- 1.5 Bat activity within the application site was considered to be low, with activity pertaining to commuting passes of both common and soprano pipistrelle. Foraging activity was restricted to soprano and common pipistrelle within the site, north-east of Building 2 during the dusk survey.
- 1.6 The following recommendation is provided to ensure the client works within the law and that any impacts to protected species are minimised.
 - 1.6.1 Bats are highly mobile and can change roost sites throughout the year and from season to season. If the development does not begin within twelve

months of this initial survey it will be necessary to conduct a re-survey to determine if bats are roosting within the buildings on site.

- 1.6.2 Should any evidence of roosting bats be uncovered during construction works then works should cease and the advice of an ecologist sought.

2 Introduction

- 2.1 Brindle & Green were commissioned by Jason and Victoria Clarke to undertake bat dusk emergence and dawn re-entry surveys at Land at 1 Park Cottages, Hartford End, Essex, Grid Ref.: TL 68853 17522.
- 2.2 The purpose of this survey was to establish whether bats were roosting within the potential features identified during the Preliminary Ecological Appraisal (Greenlight Environmental Consultancy, October 2017) and to provide details on solutions for mitigation if required.
- 2.3 The project area consists of 1 Park Cottages (Building 1), along with a converted garage (Building 2) and three outbuildings (Buildings 3, 4, 5). Building 2 comprised a single storey timber garage with a pitched pantile roof, converted for residential use. The building supported gaps behind timber weatherboarding, gaps in soffits and lifted roof tiles. This was the only building assessed to support bat roosting potential.
- 2.4 The site is located within the small hamlet of Hartford End, in a rural area of Essex approximately 7km south-west of Braintree (Figure 1). Situated along the B1417, the site is located within an agriculturally dominated environment. The River Chelmer is located 50 metres to the south.
- 2.5 The site is the subject of a planning application for the construction of two residential dwellings. It is understood that the existing outbuildings (Buildings 2, 3, 4, and 5) to 1 Park Cottages (Building 1) will be demolished to facilitate the development. Design proposals for the site are presented in Appendix 5 of this report.
- 2.6 The legislation relevant to bats within the United Kingdom is summarised within Appendix 2 and Appendix 3.
- 2.7 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, and the results of our survey of the site. This report pertains to this information only.

3 Methodology

- 3.1 Building 2 was subjected to a bat dusk emergence (21/05/2018) and a dawn re-entry survey (05/06/2018), to confidently assess presence or likely absence of bats within the roosting features identified by Greenlight Environmental Consultancy in October 2017.
- 3.2 Bat surveys were conducted according to methodologies outlined within Natural England's Bat Mitigation Guidelines (Mitchell-Jones, 2004) and the Bat Conservation Trust Good Practice Guidelines (Colins, 2016). Dusk surveys began 15 minutes before sunset and lasted for two hours following sunset, and dawn surveys begun an hour and a half before sunrise and were completed 15 minutes following sunrise.
- 3.3 On each survey, surveyors operated an Echo Meter Touch detector connected to an iPad. Where possible, species were identified using information from visual and audio cues, all sonograms were recorded on to the iPad and were analysed using Analook software to confirm species identification.
- 3.4 All bat passes, including time and species, were recorded on to field maps, noting direction of flight and emergence. Where possible, the number of individuals observed, and behaviour of the bat was also recorded, including foraging, commuting and social calling behaviours.
- 3.5 **Surveyors**
Surveys carried out by John Harvey BA, Assistant Ecologist, Natural England Bat Licence (2018-34117-CLS-CLS), Thomas Hough MSc, Assistant Ecologist and Natalie Robinson, BSc, Assistant Ecologist
The survey was overseen by Chris Needham MSc. MCIEEM (NE Bat Licence: 2015-10292-CLS-CLS)
- 3.6 **Survey Conditions**
The surveys were undertaken in weather conditions considered conducive to bat activity. The weather conditions for each survey are summarised within Section 5: Results.

3.7 **Limitations**

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The protected and notable species assessment provides a preliminary view of the likelihood of these species occurring on site, based upon the suitability of the habitats and known distribution of the species in the local area.

3.8 **Report Lifespan**

Given the transient nature of the subject we would consider the survey results contained to be accurate for 12 months.

4 Site Context

4.1 Site Description

The survey site can be found at Grid ref: TL 68853 17522. The project area consists of 1 Park Cottages (Building 1), along with a converted garage (Building 2) and three outbuildings (Buildings 3, 4, 5). Building 2 comprised a single storey timber garage with a pitched pantile roof, converted for residential use. The building supported gaps behind timber weatherboarding, gaps in soffits and lifted roof tiles.

4.2 The site is located within the small hamlet of Hartford End, in a rural area of Essex approximately 7km south-west of Braintree (Figure 1). Situated along the B1417, the site is located within an agriculturally dominated environment with woodland patches interspersed within. The site is connected to the surrounding area by scattered trees and hedgerows along field margins. Connectivity is also provided by small woodland areas along the River Chelmer, 50 metres to the south.

4.3 Zone of influence

The zone of Influence is used to describe the geographic extent of potential impacts of a proposed development in relation to the target species, in this case bats and breeding birds. Due to the scale and nature of the proposals, it is not considered that the impacts of the proposed works would extend beyond the scheme footprint and its immediate surroundings.

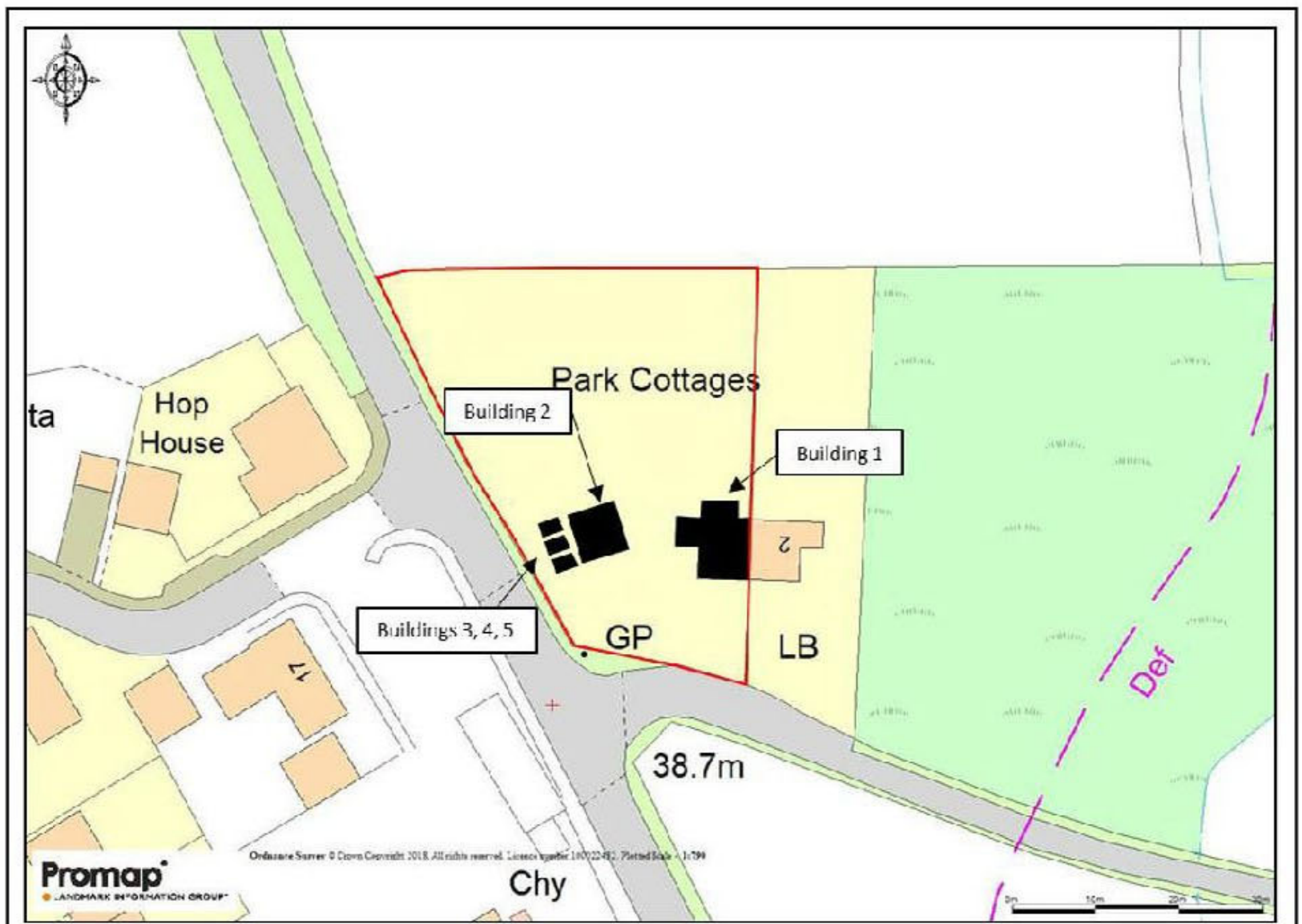


Figure 1. OS Map of the project site and surrounding area.

The red line boundary depicts application site. The bat surveys pertained to Building 2.

5 Results

5.1 A summary of bat activity per survey is provided below. Raw data sheets are available upon request from the head office. A diagrammatic representation of the bat activity recorded during surreys can be seen within Figure 2

5.2 Bat Dusk Emergence Survey – 21st May 2018

Sunset time: 20:53	Cloud Cover: 2/8	Wind speed: BF1
Start time: 20:38	Start temp: 17.4°C	Start humidity: 68%
Finish time: 22:38	Finish temp: 8.8°C	Finish humidity: 90%

5.2.1 Survey effort was focused on determining whether bats were emerging or re-entering Building 2 and assessing how bats were using the area adjacent to the survey building.

5.2.2 The first bat recorded during the survey, a *Nyctalus* sp. was recorded at 20:45, eight minutes before sunset. The first visual record was of a common pipistrelle (*Pipistrellus pipistrellus*) observed foraging north-east of Building 2 at 21:26. Foraging behaviour of a common pipistrelle was also observed within the garden north of Building 2 at 21:55 until the end of the survey. The first commuting behaviour recorded pertained to two common pipistrelles observed commuting west to east over the site at 21:28, north of Building 2. A soprano pipistrelle (*Pipistrellus pygmaeus*) was observed commuting in the opposite direction at 21:35. A soprano pipistrelle was also recorded commuting around the south-western corner of Building 2 at 21:50 and 22:00, and a common pipistrelle was observed commuting south from the garden at 22:00. The last bat recorded during the survey were pipistrelle social calls at 22:23.

5.2.3 Bat activity was low with six prominent bat passes recorded during the survey. Three species, common and soprano pipistrelle, and *Nyctalus* sp. were recorded commuting in the area, and some limited foraging activity of common and soprano pipistrelles were recorded within the application boundary, to the north and north-east of Building 2.

5.2.4 Bats were not seen or detected leaving or entering Building 2 at 1 Park Cottages during the survey.

5.3 Bat Dawn Re-entry Survey – 05th June 2018

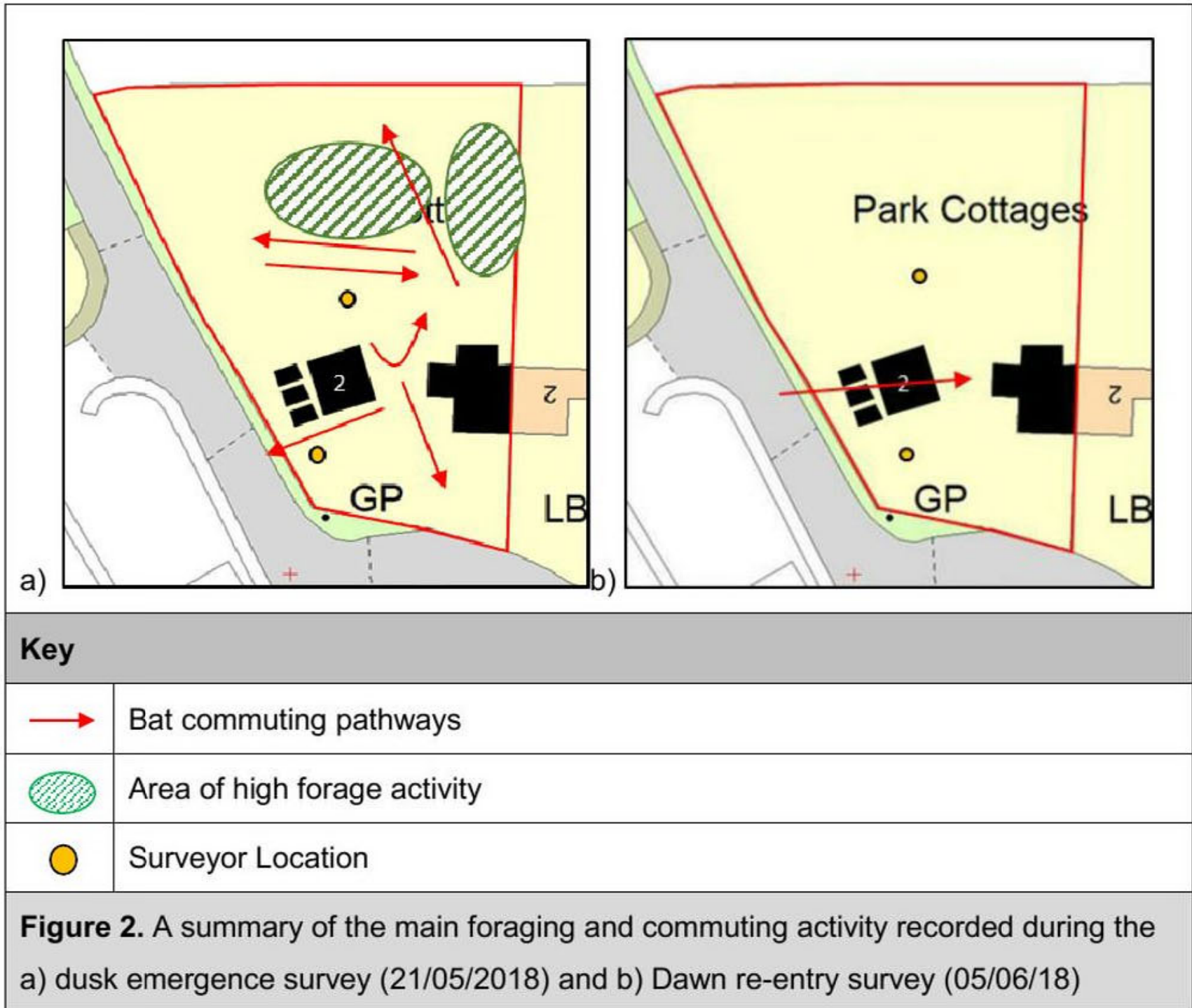
Sunrise time: 04:46	Cloud Cover: 8/8	Wind speed: BF2
Start time: 03:16	Start temp: 12°C	Start humidity: 93%
Finish time: 05:01	Finish temp: 12°C	Finish humidity: 97%

5.3.1 Survey effort was focused on determining whether bats were emerging from Building 2 and assessing how bats were using the area adjacent to the survey buildings.

5.2.4 The first bat audio recording on site pertained to a common pipistrelle at 03:23. The only visual recording of commuting behaviour was recorded at 03:44, a *pipistrelle* sp. was observed passing over Building 2 from the west to the east. Faint commuting passes were detected until 03:59 when activity subsided, and no further activity was recorded on site.

5.2.5 Bat activity was low, with only one commuting pass observed within the application boundary.

5.2.5 Bat activity was considered to be low around the application building, and no bats were not seen or detected leaving or entering Building 2 during the survey.



6 Evaluation

- 6.1 The dusk emergence and dawn re-entry surveys did not reveal any evidence of bats roosting within Building 2, 1 Park Cottages. As a result, this report does not set out recommendations relating to mitigation or the need for an EPS development licence prior to the onset of the proposed redevelopment works.
- 6.2 Foraging and commuting activity was considered to be low, with the majority of passes relating to commuting bats. Foraging activity was only recorded during the dusk survey to the north-east of Building 2, over the residential garden of 1 Park Cottages (Figure 2).
- 6.3 Three species of bat were observed during the surveys. Common and soprano pipistrelles were the dominant species recorded commuting and foraging on site. Low foraging activity of *Nyctalus* sp. was also recorded onsite. The general level of activity was considered to be low.

7 Recommendations

- 7.1 The dusk emergence bat activity survey did not reveal any evidence of bats roosting within the building. An EPS development licence is not required in order to proceed with the development works. The following recommendations are set out to ensure the client works within the law and that any impacts to protected species are minimised:
 - 7.1.1 Bats are highly mobile and can change roost sites throughout the year and from season to season. If bats are found on site after works have commenced all works must cease and the advice of a suitably qualified ecologist be sought.
 - 7.1.2 If the development of the site does not begin within twelve months of this initial survey it will be necessary to conduct an additional survey to determine if bats are roosting within the buildings on site.

Appendix 1. General References

Bat Conservation Trust (2014) Artificial lighting and wildlife Interim Guidance: Recommendations to help minimise the impact artificial lighting. Bat Conservation Trust, London.

Bell, S. McGillivray, D. (2006) *Environmental Law*. 6th ed. Oxford University Press.

Butterfly Conservation trust (2014) Nectar Plants, http://mothscount.org/text/64/nectar_plants.html

Collins, J (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines, (3rd edition), Bat Conservation Trust, London

Mitchell-Jones A.J. *Bat Mitigation Guidelines* 2004. English Nature.

Mitchell-Jones A.J. McLeish, A.P. (2004) *Bat Workers Manual* (3rd Edition). Joint Nature Conservation Committee.

Appendix 2. Legislation and Guidance Sources

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2017
- Department for Communities and Local Government. National Planning Policy Framework. March 2012
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- National Parks and Access to the Countryside Act 1949
- The Protection of Badgers Act 1992
- Land Drainage Act 1991
- The Countryside and Rights of Way Act 2000
- The Natural Environment and Rural Communities Act 2006
- The United Kingdom Biodiversity Action Plan 2006
- Hedgerow Regulations 1997
- Town and Country Planning Act 1990
- Local Biodiversity Action Plan (LBAP).

Appendix 3. Relevant Ecology and Legislation

(Please note that this is for information purposes only. Clients should seek further legal advice where necessary).

There are 17 species of bats that occur in Britain. Dramatic declines in population numbers initiated the introduction of European and UK legislative protection. British bats and their roosts are fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Additional protection is offered under Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994.

Buildings and structures which offer roosting potential to bats can be impacted by development and this can result in disturbance to potential roost sites. Bats occupy different roost sites during the year depending on species-specific summer roost and hibernation roost requirements. Bats usually re-use the same roosts, therefore the legal opinion is that the roost is protected whether or not the bats are present at the time.

In the case of development work, activities involving the capture, disturbance and/or relocation of bats are subject to a licence from Natural England. Such licences are only granted:

“For the purpose of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, to allow people to carry out activities which would otherwise be illegal.”

Under the *Conservation (Natural Habitats &c.) Regulations 1994*, licences can only be issued if Natural England are satisfied that:

- there is no satisfactory alternative; and
- the action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

Undertaking work to a bat roost without following appropriate recommendations from Natural England and/or DEFRA could lead to prosecution resulting in imprisonment, fines and confiscation of vehicles/equipment used.

Appendix 4. Design Plans

